KNOWLEDGE

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HASTE MAKES WASTE

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FROM THE CSM

Leading From Experience

A little more than two months into my time here at the USACR/Safety Center, I'm still wrapping my head around just how much safety means to our Soldiers and our Army. I've spent most of my career in the field, and while I treasure those experiences, it's incredibly humbling to come here and see firsthand how hard Soldiers work to keep their battle buddies safe. It's also inspired me to rethink my own approach to safety, especially as a leader with influence on younger Soldiers.

Many great leaders have said that one of the necessities of effective leadership is the ability to admit mistakes. We all know that's not easy; doesn't the very fact that we're leaders mean we know how to follow the rules and play it smart? After all, the Army has enough confidence in us to entrust Soldiers to our care. But just because we play it smart doesn't mean we always play it safe — sometimes there's a big difference.

I'm fortunate to be living proof of that. I say fortunate because, of all the unwise decisions I've ever made (and there have been many), one in particular could've easily killed me or someone else. Ironically, it happened at exactly the time the Army showed its greatest faith in me, as I was on my way to Fort Bliss, Texas, to attend the U.S. Army Sergeants Major Academy.

I decided to set out early from my hometown of Tampa, Fla., and drive the 1,600 miles to El Paso nonstop. Focus on "nonstop" for a second; that was my first mistake. Then mission creep set in while tying up loose ends at home, and before I knew it, it was almost lunch. Undeterred, I set out anyway, still focused on driving straight through. That was my second mistake, and they compounded quickly from there. Traffic delays, weather, you name it, it happened on that trip. By hour 17, it was nearly impossible to concentrate or stay awake. I pulled over at a hotel in San Antonio just before dusk and got some much-needed rest before making it to Fort Bliss later that day.

It didn't take long for me to realize it was neither wise nor responsible to undertake such a task without thinking things through. I was alone except for my suitcases, I'd never driven that route before, and I'm not a superhero who can function without sleep. Foolishly, I let my confidence in my presumed capabilities cloud the realities of my very human limitations. I learned that day you can't defy logic forever, and physiology will catch up with you sooner or later.

Even now, after nearly 10 years, that's not an easy story to tell. But I share it with you because I believe every leader should be sharing their safety stories with their Soldiers. We have an inherent responsibility to do the right thing and get the message to the men and women who look to us for counsel. Nothing sells a message like a personal story, and your experiences can help a Soldier make a better decision than you did in the same situation.

I'm excited to start this journey at the USACR/Safety Center and meet as many of you as possible. I hope I can be of help, and I encourage you to use every available tool to mitigate risk and preserve life in your formations. We have some awesome programs available at https://safety.army.mil, and I learn a little something from them every day. My mistake-laden trip to El Paso occurred during the earliest days of TRiPS, and had I had access to it then, I would've approached things very differently. Sometimes, we all need a wake-up call to make safer choices.

Please let me know how I can be of help, and until next time, remember to play it smart and safe!

Army Safe is Army Strong!

LEEFORD C. CAIN
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center

HASTE MAKES WASTE

CHIEF WARRANT OFFICER 4 DAN KIRBY

As aviation professionals, we all try our very best to accomplish the mission. Sometimes, this desire to produce the best results in the minimal amount of time works against us. This article highlights an instance where my desire to get the job done in the least amount of time turned into a Class C accident.

I was assigned to the 1-159th Aviation Regiment as a Black Hawk maintenance test pilot. We were about three months into a nine-month Bosnia rotation, flying a pretty heavy schedule supporting the peace-keeping efforts. Having flyable aircraft was a priority, so anytime a helicopter was in maintenance it detracted from my unit's ability to complete the mission. On this particular day, I was performing a track and balance. This procedure involved flying the aircraft with a piece of test equipment called a RADS (Rotor Analysis and Diagnostic System) attached to it.

When performing a track and balance, the pilot flies the aircraft at different airspeeds while the RADS measures vibrations and relative blade height. At the end of the flight, the RADS provides an adjustment solution that requires adjusting weights and control rods to bring the aircraft into an acceptable vibration limit. After the adjustments, the pilot flies the aircraft again to verify the amount of vibrations. If the vibrations are not within limits, the RADS will give another solution and the process is repeated. Once the aircraft is within limits, the pilot takes it out for one more flight to check the autorotational capabilities, which could have been affected during the adjustment of the control rods.

We were having problems getting the vibrations within limits and had already flown the aircraft and made adjustments five times. I really wanted to get the aircraft to a fully mission capable status so it could fly a mission later that afternoon. On the sixth flight, I started the helicopter and began to turn on the avionics. I inadvertently placed the transponder control in a position that caused the Mode 4 code to be dumped. This one act was the first mistake in a chain that resulted in the accident.

At that time, all aircraft in Bosnia were required to transmit a Mode 4 code while in flight. To reload the Mode 4 code, the nose door of the aircraft had to be opened. I asked the crew chief to get out of the aircraft and reload the Mode 4 for me rather than doing it myself, which would have involved me shutting down the aircraft, taking off my safety harness and getting out of the helicopter. If I did it myself, it would have taken about an additional 15 minutes. I saw this as an effective measure to reduce the amount of time required to correct this problem.

The crew chief exited the aircraft, opened the nose door, loaded the Mode 4 and closed the nose door. When he was finished, he gave me the thumbs up and got back into the helicopter. I immediately called for clearance to take off and began the procedure to get the RADS readings. The flight was going well and all the readings were within limits. The final reading was taken at 145 knots and it was good.

I was happy that the track and balance was finished and wanted to go right into the autorotational check without landing the aircraft and removing the RADS. I asked the crew if anyone objected. The co-pilot and the crew chief had no objections and were as glad as I was to get the job done as quickly as possible. So, I gave a safety brief to the crew and proceeded to an area that would be safe to perform the check.

An autorotation check involves bringing both engines to idle and allowing the aircraft to descend without engine power. This is done to ensure the rotor system will slow the decent of the aircraft and allow it to land safely if the engines fail in flight. When I was established in the autorotational area, I began the autorotational check by lowering the collective and bringing the engine power control levers to idle. The aircraft began to descend at about 2,000 feet per minute. This changed the flow of air over the nose door from downward, which acted to keep it closed, to upward, which asserted pressure upward.

None of us realized the nose door of the aircraft had not been latched closed. It is usually held shut by two latches and a lock assembly. The lock assembly is there primarily to secure the avionics equipment located in the nose of the aircraft. It is not designed to keep the door closed while the aircraft is in flight. When the crew chief closed the nose door after loading the Mode 4, he locked it with the key but did not secure the two latches. After just a few seconds of establishing a descent, the nose door flew open, sending the RADS camera, which was mounted on the nose door, through the center windshield. This caused the nose door to jam fully open, completely blocking my forward field of view.

I recovered from the autorotation by bringing the power control levers back to the normal fly position and arresting the descent. I had to fly the aircraft back to the airfield by looking out the side door windows because the nose door remained jammed open. Luckily, the nose door did not become detached from the aircraft or it could have possibly been sent through the main rotor and further complicated matters.

After landing, we got out to assess the damage. The fiberglass nose door was cracked and punctured, the RADS camera was broken and the prop rod used to hold the door open during maintenance broke off at one end and was driven into the ADF receiver as the nose door slammed shut on landing. As we already knew, the center windshield was broken. A technical inspection/report of survey revealed more than $12,000 in damage. Luckily, none of us were injured, but it could have easily gone the other way.

So, who was at fault for this accident? Ultimately, I was because I was the pilot in command. Does it really matter? Not really. The whole crew was put into a position of danger because of the mistakes that were made. How could this have been avoided? We could have slowed our pace and double-checked instead of taking every opportunity to save a few more seconds. Like the old saying goes: Haste makes waste.

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CAUGHT IN THE SUN

CHIEF WARRANT OFFICER 3 BRIAN MCUMBER
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As a motorcycle rider with more than 26 years of experience, I consider myself fairly seasoned. Seasoned, however, doesn't always equal smart. As human beings, we are still susceptible to simple mistakes, overconfidence and errors in judgment. I'd like to share with you one particular experience I had recently in which all of these mistakes almost played into a serious accident.

It was a beautiful Saturday afternoon in Tennessee — the kind of day that riders hate to pass up. The sun was shining and there was slight breeze keeping the temperature about 70 F. I had spent the day catching up on some cleaning and maintenance on my vehicles, and my 2007 Triumph Speed Triple was now all shined up and begging to be ridden. When my wife mentioned she needed something from the store, I figured that was the excuse I needed to go for a quick ride.

The trip to the store was uneventful enough. I picked up what my wife needed, threw it in my backpack and set off for home. About two miles from the house, I stopped at a traffic light and was faced with a decision. I could either go straight and head back home, or I could turn left and take a three-mile detour onto a nice, twisty back road that ran behind my house. Like every self-respecting motorcycle rider, I took the left turn and headed toward the twisty road.

Up ahead, I knew the road made a slow sweep to the left and then doubled back to the right before entering a wooded area with ditches on either side. I was very familiar with this road, which ran through a sparsely populated area, because I frequently took it on my way home from work. As I started down the road, I passed two gas stations, one on my left and one on my right. At the gas station on my right, there was a family out front, and I could see one of the kids pointing and admiring my bike as I passed by.

Lost in the moment, I figured I would demonstrate my assumed riding skill and rolled on the throttle. By now, it was late afternoon and the sun was beginning to set. I started into the left-hand turn and was blinded as the sun shined directly in my face. At the time, I wasn't too concerned because I knew I would soon turn back to the right and the sun would be out of my face. What I didn't know and what I couldn't see was that they had started to repave the road and had laid down fresh tar and loose gravel.

My first indication that I was in a bad situation was when the rear of the bike started to slide out. By now I was out of the blinding sun and had spotted the gravel. I reduced the throttle a little and slowly raised the bike enough to keep it in the turn, regain some traction and get the rear tire back behind the bike. I continued to slow and coasted through the right-hand turn and began to silently chastise myself for being so stupid.

The one thing that saved me from scraping pebbles out of my butt — and possibly wrapping my bike around a tree — was experience. Over my many years of riding, I have been lucky enough to ride all-terrain vehicles, dirt bikes and street bikes. I've also ridden several open track days at race courses. Needless to say, this was not the first time I had found myself unintentionally sliding through a turn. Luckily, this time it didn't land me in the hospital like it had once in the past.

At the end of the day, this close call was caused by indiscipline and was easily preventable. I was riding too fast for the conditions (blinding sun) and assumed the road was in good condition because I had ridden on the road a few days before (overconfidence). This is a prime example of no matter how much experience you have, you are still susceptible to simple mistakes. Hopefully, your experience will also save your bacon when you get into a bad situation.

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UNDERSTANDING WEAPONS SAFETY

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Soldiers depend on leaders to have the knowledge, skills and ability to lead and instruct classes that deal with all forms of safety. When it comes to weapons safety, we have to be the subject matter experts. Attentive leadership and an effective weapon safety program are pivotal components to reducing accidents.

In my opinion, the accidental discharge of a weapon does not exist. A firearm is only as safe as the person handling it. For a weapon to fire, one must load rounds into it and, at some point, pull the trigger. An accidental discharge is the result of poor weapons handling, inattention to detail and lack of training and discipline. It's important that Soldiers do not take weapon safety lightly. And it's just as important that leaders lead by example and enforce the standards.

Soldiers should know and understand the characteristics of the weapon (privately owned or assigned) they're using. Unless you're a licensed gunsmith or if it's within your military duties to perform direct support maintenance, don't modify or try to change the configuration of a weapon. Doing so could result in major malfunctions and possibly render your weapon useless. When handling any weapon, make sure you know its safety features and capabilities. It's a good idea to read the owner's manual or sign up for a safety class.

Even though your firearm may have a safety device, don't assume it will always work. I've often heard the misconception, "It won't fire. The safety is on." Another phrase that makes me cringe is, "It's not loaded." How many unloaded firearms have resulted in the death or serious injury of someone? As a cardinal rule, don't load your weapon until you're ready to use it and always treat it as loaded.

A good way for leaders to ensure Soldiers understand firearms safety is to have them explain their weapon's safety features, its loading and unloading procedures and how to perform immediate action on it should it malfunction. Once Soldiers understand and successfully execute these simple tasks, the likelihood of an accidental discharge will decrease.

When storing weapons, keep them in a lockable container, inaccessible to others. It's also a good idea to use a locking device on your weapon. For those residing on an installation, it's mandatory to register privately owned weapons with the provost marshal's office. Soldiers can keep weapons in their living quarters; however, if they live in the barracks, their weapons need to be stored in the arms room. Refer to Army Regulation 190-11, Chapter 4, for more guidance on storage.

So what are the chances of an accidental discharge occurring at home? What happens when a child finds a firearm? Parents have the responsibility to practice weapons safety at home. A good time to introduce weapons safety to children is if they show an interest in toy guns. Children watch television and may be inclined to know what a firearm would really do or how it works. Don't just tell your child guns are dangerous. This alone may excite their curiosity. Sadly, this exact situation happened a few months ago at my neighbor's house and resulted in the accidental death of a teenager.

Parents who take the time out to teach, practice and demonstrate the functional use of a firearm will ensure the safety of their children to a greater extent than those who don't. Children need to know what to do if they find a firearm. Constantly reinforce that firearms are not toys and at no time should be treated as such.

A leader's (and parent's) role never stops when it comes to firearm safety. You don't ever want to be in the situation where you say to yourself, "If only I provided more training or talked to my Soldier or child about the use of firearms."

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Remember to always **THINK** when dealing with firearms:

Treat every weapon as if it's loaded.
Handle every weapon with care.
Identify the target before you fire.
Never point a weapon at someone unless you intend to use it.
Keep the weapon on safe and your finger off the trigger until you're ready to fire it.

To learn more about weapons safety, check out the U.S. Army Combat Readiness/Safety Center's Range & Weapons Safety toolbox at https://safety.army.mil/rangeweaponssafety.

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SPACE AND TIME

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While conducting daily maintenance on an AH-64D, a crew chief discovered a two-inch hole in the No. 5 driveshaft cover (tail rotor driveshaft). Upon opening the cover, he found a 30 mm round lodged underneath the driveshaft. He notified production control, his commander and the safety officer, and an investigation started immediately.

The investigation revealed the aircraft had been flown the previous night on a two-ship live-fire exercise. The team of two Apaches had conducted multiple engagements during the exercise in day and night vision device conditions. The hole was not seen during the post-flight inspection.

This incident could have been much worse. Luckily, the round, although it was under the No. 5 driveshaft, was not in direct contact with it. We don't know if the round was from gun No. 1 or gun No. 2. It is possible the round was a ricochet from either aircraft. It definitely did not hit the aircraft in free flight or there would have been significantly more damage. The end result was replacement of a tail rotor push-pull tube and sheet metal repair on the driveshaft cover.

As a safety officer, the incident brought to light some serious issues, including team tactics and post-flight procedures. The basis of our Apache pilot training is working in a team of two while engaging targets. We do this constantly. One thing that is often overlooked, though, is the spacing and timing between aircraft and not overflying the target.

Aircraft spacing and timing in a real engagement varies depending on the tactical situation. This is a broad and general statement, but it's true. Timing, in this sense, is defined as gun No. 2 firing as gun No.1 is breaking. It is possible that gun No. 2 may have fired too soon and a ricochet hit gun No. 1. It is also possible that gun No. 1 overflew the target while engaging a target and received a ricochet from his gun. The fact is we will never know.

Post-flight procedures are critical. In the above incident, if the aircraft was going out with another crew that night, the new crew may not have seen the hole in the driveshaft cover and ultimately would not have known about the round bouncing around under their No. 5 driveshaft. Do a thorough post-flight inspection and check the fuselage.

This incident could have been prevented by not overflying the target and using proper timing of ordnance between aircraft in the team of two. After the aircraft was on the ground, a proper post-flight would have at least prevented the possibility of another crew taking the aircraft that same night with potentially catastrophic results.

Brief and rehearse your team tactics and remember that ricochet potential is real. It could bring your aircraft down long before the enemy does. A thorough post-flight gets maintenance on the job quickly and also prevents another crew from taking a malfunctioning aircraft.

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EXPECT THE UNEXPECTED

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A few years ago, my girlfriend, Allison, and I decided to take a trip during spring break to a nice costal town in Oregon named Seaside. We made the arrangements, checked the weather and packed accordingly. Little did we know that this trip would teach us the importance of always planning for the unexpected.

We left Boise, Idaho, about 8 a.m. and, after an overnight stop in Hood River, Ore., arrived in Seaside late the following afternoon. We were surprised to see and feel how the weather had changed from the original forecast, but we weren't going to let the cold ruin our trip. During our week there, we toured the towns along the Oregon coast before heading up to Astoria to see the house where the movie "The Goonies" was filmed. It was there that it started to snow.

The locals seemed surprised and excited to see the fluffy white flakes. I, however, was a little perturbed, knowing I was now going to have to pay extra attention to the slick roads and other motorists. Seeing the snow also made me regret that we'd taken my father's two-wheel-drive automatic Toyota truck instead of my four-wheel-drive pickup. Once back at the hotel, we checked the weather and saw there would be a break in the snow the next day. We decided we'd need to get an early start to beat the weather.

The next morning, we grabbed some coffee and hit the road. I'd placed all our luggage over the back wheels in hopes the weight to help provide traction if we ran into any snow-covered roads. At the moment, the roads were wet and free of snow, so I was feeling good about our decision to leave early. Those good feelings wouldn't last long, though.

As we got farther into the mountains, there were a few heavily shaded canyons and curves that were still covered in snow. Once again, I cursed myself for not bringing my four-wheel-drive truck. I'd grown up in a small mountain town, so I was no stranger to winter driving — but that doesn't mean I enjoy it.

As we continued to travel the snow-covered roads, I slowed our speed to about 40 mph and turned on my hazard flashers. Others, however, weren't being so cautious. I was amazed how fast these folks were driving in such treacherous conditions.

As we started up a small shaded hill, I could feel the rear-drive tire begin to spin and slip on the icy road. Unfortunately, our luggage was not nearly heavy enough to provide the weight needed for increased traction. I slowed to about 25 mph and placed the automatic transmission into second gear so the truck would not automatically down shift, which would increase our RPM and cause the back tire to spin faster and possibly slip and lose control. We debated pulling off the side of the road to let some air out of the tires to increase the surface area and get more traction but decided not to because we were still driving up that icy hill.

Once we reached the top of the hill, the sun and glare from the ice was blinding. I slowed down to about 10-15 mph and slowly proceeded down the hill. As we got farther down the hill, Allie pointed out that there was a gasoline tanker truck stopped in the opposite lane. The driver was putting on chains to help him make it up the icy hill. Directly behind the gasoline tanker were two trucks trying to pass him. One lost control and slid sideways in the middle of the road, blocking our lane. Then we hit an icy patch and began sliding sideways. Luckily, I was able to maintain control, and the truck regained traction. Frustrated, I decided to pull off the road and wait for the trucks to move and the ice to melt.

I had just adjusted the rearview mirror so I could see everything approaching from behind when a small passenger car came racing over the hill. We watched in stunned silence as the car slid down the hill and directly into the gasoline tanker truck. I thought for sure the car was going to strike the gasoline tank and explode just like in the movies. Fortunately, it hit a tire and bounced off before striking the other truck that was still in the middle of the road. Shortly after the accident, the police and ambulance arrived. Thankfully, no one was seriously injured.

Once the accident scene was cleared, the sanding trucks came in and covered the hill. The police allowed traffic to resume, but Allie and I were in no hurry. We decided to hang out on the side of the road for awhile and let all the other cars to go ahead. The rest of the drive home was uneventful.

When traveling in the mountains during the fall through spring months, I recommend you always take the proper precautions. The weather can change in a hurry, and conditions can be drastically different in the upper elevations. Make sure your vehicle can handle changing weather conditions. It's also a good idea to tell someone your travel plans so they can assist you in the event of an emergency.

Ultimately, we had an enjoyable trip to Oregon. But it could have easily ended badly. In the mountains, wintery road conditions can last into spring, so expect the unexpected. If you encounter a hazardous situation, listen to your gut feeling and always err on the side of safety. If something doesn't feel right, then it probably isn't.

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SUNRISE SURPRISE

CHIEF WARRANT OFFICER 2 K. ROSS THOMMAN
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Conroe, Texas

It was 3 a.m. on a Friday — time to roll out of bed to get our weekly long run started. We were into week seven of our marathon training. Each week, we'd complete one long run to push our endurance just a little bit further. Today, we were tackling 13 miles. Long runs were usually on Saturdays, but this week we decided to push it up a day because it was my drill weekend. And because my wife had to be at work before 8 a.m., we decided to get up and just get it over with instead of skipping training or doing it individually.

Our run route was through our neighborhood, down some dark thru-roads, around the local university campus and back down some major streets in town. Everything started uneventfully, just a normal humid morning with an outside temperature of about 85 F. However, as we continued, things got a bit hairy. Only about 60 percent of the streets we were using had enough room to run on. The other 40 percent had us running along a major highway as close to the outer white line as we could on the narrow shoulder. If we left the highway, we risked injuring an ankle or knee if we stepped in a hole we couldn't see.

We wore clothes that would help increase our contrast and visibility against the night sky, and most of the streets we were running on were lit with streetlights. But as it turns out, streetlights don't exactly make you visible to weary and sleepy drivers who are ready to get home and get to sleep. At this time of morning, and our proximity to the campus, I knew our risk of encountering a drunk driver was also significantly increased. Thankfully, we didn't notice any drivers who seemed to be driving erratically. However, a few people were late to react when they finally saw us along the road from behind. (Studies have shown that tired drivers behind the wheel react the same as a person that has just finished several alcoholic drinks.)

Also, there were some just plain weird people out there that must enjoy antagonizing people on the streets. I noticed one vehicle that would pass us and then turn around just to drive by us again. This made us extremely uncomfortable. I practiced memorizing the license plates of cars that would drive by, just in case, saying them over and over in my head. Then the pain of running would kick in and I would quickly forget the plate number. Ugh! Thankfully, throughout the campus there were emergency telephones that dial directly to the police or emergency services department. This gave us a small feeling of security.

The last dangerous thing I remember was the high beams of oncoming cars blinding us to the point that we had to look away. Not being able to see a car as it drove by made me uneasy. I wouldn't have enough time to react should it make a sudden move toward us. All these factors combined gave us a running experience I don't think we'll repeat. Now we just adjust other things in our schedule to fit in our running.

Some of the things we could have done better would include increasing our visibility. The Army's policy to wear a reflective belt during hours of darkness would have been smart addition to our clothing. It would have increased the distance at which drivers could have noticed us. Since then, I've seen different options, such as lights you can clip onto your clothes, to make runners more visible in the dark. The next time my wife and I run in the dark, you can bet that we will be wearing them.

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WEATHERING THE STORM

CHIEF WARRANT OFFICER 3 BRUCE SAFFORD JR.
B Company, 2-3 GSAB, 3rd Combat Aviation Brigade
Hunter Army Airfield, Ga.

Day of Notification

On July 26, 2012, I received a call from the commander and was informed I had been tasked to be the pilot in command to assist 2-6 Cavalry in completing their requirement to move seven M113 armored personnel carriers into the Fort Stewart artillery impact area. Two days prior, I had completed the CH-47F transition. One would think I would have been a little nervous so soon after being introduced to a new aircraft, but I had done this type of mission many times. Additionally, my crew consisted of my standards pilot with 2,500 hours of flight time, a standards instructor with 3,000 hours and a 1,000-hour flight examiner. I was one of the low-time guys with 1,100 hours. I was notified on Friday that the mission would take place the following Monday.

Mission Day

I arrived to the hangar that Monday to prep for the flight. I checked the aircraft status, NOTAMS, flight plan, preflight time and weather. Everything was OK, except for the weather (strike one). It was 5:30 a.m., and the ceiling was forecasted broken at 600 feet at our departure/destination location and was scheduled to lift about 11 a.m. I called the unit we were supporting to tell them about the delay and that we would not arrive there at 9 a.m. as originally planned.

At this time, there was another bird/crew scheduled to fly a training flight, but they canceled due to the weather. We decided we would crank at 9:45 a.m. and take off as soon as the weather conditions improved. During the startup, we ran into some maintenance issues and had to jump another aircraft (strike two).

After moving to the other aircraft, we started engines and waited for Metro and tower to report favorable conditions. At 10:30 a.m., we received a call from Metro informing us the weather was broken at 1,200 and at 2,300 feet altitude, with rain showers forecast to arrive about 3 p.m. We were OK with that because we knew we would be back before then, so we took off.

Upon arrival at the pickup site, the weather was beautiful, not a cloud in the sky. We completed the work and the customer was pleased. After takeoff to return to base, it began to rain. Flying in rain isn't a big issue. In Savannah, it rains quite often, so we were accustomed to flying in this type of weather.

As we flew farther east toward Hunter, I noticed the raindrops had become progressively larger, about the size of grapes (strike three). As the drops grew larger, the ceiling became lower. Weather that was 1000/3 quickly became 500/1. We immediately set up for an inadvertent instrument meteorological conditions scenario. Shortly afterward, the ceiling went to 200/½. I was familiar with the area and remembered there was a tower in our flight path ahead. Then the ceiling and visibility went to zero. We punched in. I told the other pilot to start climbing to avoid the tower. I immediately called Marne radio, then Hunter GCA to setup for a PAR.

I told GCA that I wanted to do the PAR into Hunter. GCA asked me if I saw my forward path. Confused, I realized why he asked the question. He thought I was a special ops aircraft and had weather radar onboard. I told him again my aircraft type and that I needed radar vectors for the PAR. He guided us around the storm and handed us off to the final controller whose voice I recognized. I'd trained with her many times, and her voice calmed the storm that had been building inside of me since we punched in.

On short final, she called us with, "On glide slope, on course, three miles from touchdown." I controlled our heading while the other pilot controlled our rate of descent. Our radar altimeter read 500, 400 and then 380 feet when we punched out. Suddenly, the combining transmission caution light illuminated. We remained calm and continued down to decision height and called to say that we had the runway in sight. We thanked her, changed frequencies to Hunter tower and landed the aircraft.

Lessons Learned

The outcome of this flight could have been different had there been a different crew. It was a good thing that we had the SP and the SI on the mission. Additionally, we were forced to rely on the CAAS system of the CH-47F, which allowed me to see how well the system works in a real-life scenario. On a different note, I'll think twice about trying to push into weather, especially when there isn't a real need to do so. We could have pushed the mission to the next day, or the supported unit could have found another way to get the M113s moved. In all, I am glad to have experienced flying in that type of situation, but I hope to never have to go through it again.

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CRASH COURSE IN DRIVING

COMPILED BY THE KNOWLEDGE STAFF

So there I was, only 18 years old and driving in my first car. It was an old hand-me-down Volvo wagon borrowed from my stepmother. It was ugly but built like a tank. I was in the suburbs of Santa Clarita, Calif., a busy city in Los Angeles County. The weather was nasty that day, with rain drenching the streets and hindering visibility as I searched for a ramp onto the freeway. I realized I was a risky situation because: 1) I was slightly lost; and 2) most Californians are pretty crappy drivers in bad weather. But there was third thing I didn't realize — I, too, was a pretty crappy driver in bad weather.

Red brake lights reflected off the wet road as the cars in front of me came to a stop at an intersection. While waiting at the red light, I tried to look around, hoping to catch a glimpse of a freeway entry sign. Unfortunately, the hilly area and dark skies made it hard to see anything, and before I knew it, the cars were moving again. I returned my focus to the road and the car in front of me, which I was probably following a little too closely in my inexperience. Traffic was moving slowly, though, so I felt secure about my short following distance.

As the cars in front of me crossed through the intersection under the green light, I stepped on the gas pedal to match the speed of the vehicle in front of me. While passing through the intersection, I noticed an opening up ahead that would allow me to search for that elusive onramp. My eyes left the car in front of me and wandered to the left while my pressure on the gas pedal remained steady. The light was green after all, so the cars would keep moving, right? Wrong!

Upon finding no freeway entry signs, my eyes moved back forward to the shocking sight of red brake lights and a very small gap between me and the stopped car in front of me. I immediately slammed on the brakes, which engaged but didn't stop my car. The wheels slid on the slick street, carrying me and my heavy, well-built Volvo into the rear of the hapless sedan in front of me. WHAM! But that wasn't the end of it. My car kept going forward, its weight shoving the sedan into the lowered tailgate of a pickup truck.

Trying to calm my pounding heart, I took a few breaths and pulled over to the side of the road like I saw the drivers of the truck and sedan doing. Once we were all there, I hesitantly exited my vehicle, my head hung low. There to meet me were a middle-aged man and a young man, and neither looked very happy. The three of us turned to inspect our vehicles. The tailgate of the truck was pretty bent — its formerly straight edge visibly crimped. The hood of the sedan looked like wrinkled paper. It had been rammed into the tailgate of the truck so hard that the metal of the hood was peeled back to reveal the engine. And then there was my car, which looked … untouched. The old, ugly Volvo didn't seem to have sustained any damage beyond a small scratch on the front bumper. The police were called and paperwork was filled out. Two angry drivers and three lectures from my dad later, I found my insurance had been raised and my pride in my driving skills — or lack thereof — lowered.

I learned a lot from that day and so can any driver. First and foremost, keep your eyes on the road! Wet conditions and short following distances aside, I would have been able to stop my car had I immediately reacted to the driver in front of me stopping. Secondly, keep a safe following distance even in slow traffic conditions. The National Safety Council recommends drivers use a three-second following distance to give them time to react should something happen on the road ahead. That distance should increase as road and weather conditions get worse. Third, reduce your speed and allow for longer stopping distances in adverse weather. It doesn't take much water on the road for you to hydroplane, and chances are you will if you slam on your brakes. Save yourself from having to do that by driving slowly and giving yourself plenty of extra room.

In the end, I paid a lot of extra money and lost some respect from my dad, but this experience had positive aspects as well. I'm glad I learned to be a safer driver in a small multi-car crash in which no one was hurt. If I hadn't gained some maturity, I likely would have eventually been involved in a worse accident that could have cost someone their life. However, because I started to take driving more seriously, I have not been involved in a single accident since that day. I can only hope that you will learn from my mistakes (or at least your own) and not place yourself and others in danger with reckless driving.

THE GREAT OUTDOORS

CHIEF WARRANT OFFICER 5 ROBERT B. REYNOLDS
U.S. Army Africa
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If you're like me, you enjoy the smell of fresh air and nature. With warmer weather on its way, many of us can't wait to head into the great outdoors for some rest, relaxation, adventure and restoration. Camping is one of my favorite ways to connect with nature. If that sounds like something you want to do, just remember that proper planning and preparation can help keep you and your family safe on that outdoor adventure. No matter what level of camping comfort you enjoy, there are always risks and hazards. According to www.campsafe.org, on average, there are more than 30,000 camping-related injuries treated in emergency rooms each year, and doctors treat an additional 75,000. For a safer camping experience, here are some suggestions.

Before leaving the house

A safe and enjoyable camping trip begins with proper planning. Always be prepared for the unexpected. Before you leave the driveway, check the weather report and learn about security issues at your camp site. Be sure to bring along a supply kit that includes a first aid kit, compass or GPS, map, flashlight, blankets, batteries, food, clothes and medications. Make sure you know who to contact at the camp to report issues that may come up. Also tell family and friends what your plans are for your outing.

When it comes to communications, keep in mind that your cellphone may not get a signal in the woods. Because of this, some people carry a satellite phone while camping. Another useful communication tool is a personal locator beacon, which, when activated, sends out a personalized distress signal alerting rescue authorities in the event of an emergency. While these electronic devices are useful in an emergency, they are no substitute for proper preparation.

Another major area of preparedness consideration is packing the proper gear for the trip. The Centers for Disease Control and Prevention provides the following checklist to help you pack for success:

- Adequate bedding/sleeping bag and extra blankets

- Light-weight, light-colored clothing, including long sleeves and pants

- Tent and plastic ground cloth

- Insect repellent containing DEET for skin

- Permethrin insect repellent for clothing

- Broad-spectrum sunscreen and lipscreen with SPF 15 or higher

- Wide-brimmed hat and sunglasses

- Healthy on-the-go snacks and other food

- Water and other alcohol-free and sugar-free fluids

- Insulated cooler

- Alcohol-based hand sanitizer

- Life jacket, helmet, and other protective gear

- First-aid kit

- Compass or GPS

- Map

- Flashlights

- Extra batteries

- Sturdy shoes

- Extra set of clothes

- Medical records, including vaccinations; insect, food, plant and other allergies; diseases and conditions; medicines, dosing schedules and storage instructions; emergency contacts; and activities your doctor or nurse says to avoid

At the campsite

Before setting up your camp, do a survey of your site. Look for hazards such as poison ivy, bees and ant mounds. There may be sharp objects in the area such as broken glass, sharp sticks and stones that may need to be moved. If you decide to build a campfire, do it safely. Follow these tips to ensure you enjoy those s'mores safely.

- Build or use a campfire pit away from overhanging tree branches.

- Make sure the fire has a metal fire ring or is encircled with rocks.

- Keep a bucket of water and shovel nearby.

- Never leave a campfire unattended and be sure to put out your campfire completely before you leave.

- Use fireproof cooking equipment.

Be sure to pack healthy and nutritious food and snacks on your camping trip. Following a few easy and necessary precautions will keep your food safe. Pack foods in tight, waterproof bags or containers. Keep foods in an insulated cooler. When handling any food, ensure everyone washes their hands, and clean preparation and eating surfaces often. Use hand sanitizer if water is not available. Separating raw foods from cooked foods will reduce the possibility of cross contamination. Cook all foods to proper temperatures (e.g., ground beef should be cooked to an internal temperature of 160 F) and chill foods promptly when storing leftovers. To help prevent a heat-related illness during hot days, drink plenty of alcohol-free and sugar-free fluids. Remember, don't wait until you're thirsty to drink.

Also be aware of carbon monoxide poisoning. Carbon monoxide is odorless and colorless and can cause illness or death in people and pets. Never use fuel-burning equipment such as gas stoves, heaters, lanterns and charcoal grills inside a tent, camper or other enclosed shelter. Using fuel-burning equipment in enclosures can cause dangerous levels of carbon monoxide to build up. Everyone should bring adequate bedding and clothing and should consume extra calories and fluids during the outing to prevent hypothermia (a dangerous loss of body warmth that can cause death) which is a safe alternative to fuel-burning appliances to supply heat. Using a plastic ground cloth under your tent will help keep you dry.

Avoid water-related illness and injury

A camping experience often includes playing in and around the water. To help protect yourself and your fellow campers from illness, don't swim if you have diarrhea and don't swallow the water you swim in. Never swim alone and, if feasible, take a shower before and after swimming. If you plan to ride in a boat, canoe or other water vehicle, be sure to wear a life jacket. Always avoid alcohol when participating in water sports.

On the trail

Camping is a great opportunity to get some physical activity. Do things to keep you active during your trip such as walking, hiking, biking or swimming. Be sure to bring protective gear, including helmets, sturdy shoes and life jackets. Avoid poison ivy, poison oak and poison sumac. Know your limits, and take steps to avoid injury during activities. Never hike alone and watch kids closely. Ultraviolet rays from the sun can cause skin cancer, premature aging and cataracts, even on cloudy days. Use a broad-spectrum (against UVA and UVB rays) sunscreen and lipscreen with at least SPF 15. Cover up with layers of light-weight, light-colored and loose-fitting clothing, a wide-brimmed hat and sunglasses, and seek shade when the sun's rays are strongest. Take regular rest breaks in shady areas, which can protect you from getting too much sun.

Even if you only intend on being out for a short time, plan your trip carefully and take along some basic supplies. Know what type of terrain you will be traversing and the day's weather report. If you do get lost, keep calm. Take out your map and find some landmarks to reference your location. Stay put after dark or if you happen to get injured or become fatigued. Follow streams or drainages as a last option, as they often lead to a trail or road.

Wildlife

Some wild animals carry diseases that are dangerous to people, including rabies. Keep a safe distance and avoid touching, feeding and getting near wild animals. Instead, enjoy watching them from a safe distance in their natural surroundings. Keep foods stored in sealed containers and out of the reach of animals. Make sure your family pets are vaccinated and watch them closely. Also ensure they have plenty of water, food and shelter, and don't let them interact with wildlife.

Mosquitoes, ticks and other biting insects can cause certain diseases such as West Nile Virus and Lyme disease. To help fight the bite, apply insect repellent containing DEET to clothes and exposed skin. Apply the insect repellent permethrin to clothes to help keep ticks from attaching to them. Be sure to follow directions on the package. Wear long sleeves, pants and other light-colored clothing to help prevent and spot ticks more easily. Check both people and animals for ticks daily, and remove them promptly.

Packing up to go home

After you have packed up, look where you have camped and cooked. Make sure that the area is clean. Look at it as if you are staying in someone's house. How would you want that bedroom to look? Treat nature the same way and leave it for the next family to enjoy.

Arriving back at home

The trip is not a success until you all get home safe and sound in good health. Make a plan for when you return to check for ticks, poison ivy and other problems that may have cropped up during the trip. Keep the fun in camping. Be sure to take the necessary safety precautions and enjoy the adventure.

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THE RISKS ARE STILL REAL

RETIRED CHIEF WARRANT OFFICER 3 RODNEY KEY
III Corps, B Troop, 158th Aviation
Fort Hood, Texas

It was a standard Wednesday morning training flight. We planned, did the preflight and prepared to fly. After run-up, we took off and rerouted to the training areas where we did some low-level training (i.e., land navigation and tactical landings). We completed the flight without thinking about the risks we felt when we started our flying careers.

While we operate on these ranges to learn how to stay alive on the battlefield, why, as experienced aviators, do we not fear these activities? I recall that I was scared to death the first time I had to fly low level or punch into the clouds at 400 feet. Now, with experience, I have no issues taking the new W1 out on a training flight and showing him these maneuvers. Have the risks really changed?

There is a psychological term called "risk homeostasis," first researched by Gerald Wilde. Wilde said, "Humans behave in such a way that if risk is identified in a given system, and is reduced by design, then a compensatory increase in risk-taking will occur somewhere else in the system." I interpret this is as: If we teach aviators to fly to the limits of the aircraft, while staying inside their standards, the aviator will find a way to create the feeling of "that was fun."

The best example of risk homeostasis is the most risky thing we do every single day — driving. Most people believe they live safe lives and may not worry about getting into a car to drive. In this day and age, we drive everywhere. Unfortunately, many of us are unable to see why it is so dangerous.

The Army has put so many controls on aviators through aircrew training manuals, risk matrixes and briefing procedures that it might give a pilot a false sense of security that this is a low-risk mission or a "I have done this a hundred times, so I will be just fine" mentality. The scared feeling you experience the first time is a natural reaction to a dangerous situation. While we may become desensitized to these situations, the risk is still very real.

As aviators, we need to continue to evaluate our surroundings and look for additional hazards. These hazards can be major changes like thunderstorms approaching or minor and more difficult to see like a new set of wires on the ridge line. While we are very good at most of this, there is one area I believe we need more work — training the up-and-coming aviators to see those changes so they can pass these valuable skills down the line. Real-world operations push the limits of people and equipment. It is a tragedy to lose aviation professionals to needless and preventable accidents.

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UP THE CREEK

CHIEF WARRANT OFFICER 3 JAMES J. MCDEVITT
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Although it's been many years since I nearly killed myself and my best friend, I remember it like it was yesterday. I often reflect on that day, wondering how we ever made it across that flooded low water crossing while on our way to one of our favorite turkey hunting spots.

We worked for a concrete construction company that usually gave us the day off during inclement weather. On this particular spring day, it was pouring rain and had been since the previous night. We were anticipating the boss letting us off for the day and were eager to be released because it was the height of Missouri's turkey season and we wanted to go hunting. Eventually, the boss gave the words we all wanted to hear —"No work today."

My buddy and I always prepared for these moments, especially during any hunting season, and had all necessary equipment ready for an expeditious move out. We jumped into my Toyota Tacoma pickup and took off like a shot.

It was getting close to daylight, so we were in a hurry to beat the turkeys off the roost. We wanted to be set up in position before the turkeys flew down out of the trees where they'd slept during the night. This was a crucial time because it set the pace and gave either the hunter or the hunted the upper hand. Once the male, or "Tom" turkey, gets together with a hen, it's tough to call him to you because he already has what he wants.

On our way to the hunting spot, we crossed a bridge over a very swollen creek. We were surprised how high the water was compared to normal. We traversed this road often, so we knew the water was sure to be amazing at the low water crossing. We knew crossing it was sure to be just as amazing. Little did we know!

When we arrived at the crossing, it was unbelievable — like something out of the movie "Deliverance." I hesitated as I eased the front tires into the water. As I did, I thought about how the hunting spot was only 100 meters on the other side and how long it would take to go around. "Screw it," I thought, as I drove a little farther, testing the depth as we went. My friend, who often taunted others to "go for it" — especially when it wasn't his vehicle — wasn't saying a word.

By the time we made it halfway across, the rushing water was three-quarters the way up my door. We were now committed — there was no turning back. We'd almost made it to the other side when the truck began shifting and sliding. My friend yelled, "Hit the gas!" I yelled back, "I've got it floored!" However, the truck couldn't move any faster because the rear tires were floating.

At the last possible moment, the tires grabbed and we made it to the other side. After we both let out a sigh of relief, my friend said, "We made it … but don't ever do that again!" Relieved that we'd just dodge disaster, we decided we'd take the long way home and never chance crossing that water again.

I share this story because I don't want others to make the same mistakes we did that day. Life is too short and too many people care about you. Always do at least a mental risk assessment on everything you do — even the routine things you do daily. And beware any time you hear someone say, "Screw it!" Someone is about to get hurt or killed. Try not to be either one!

Did You Know?
According to the National Weather Service, nearly half of all flash flood fatalities are vehicle-related.

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STICKER SHOCK

VICTOR WOOTEN
Range Control Safety Officer
Fort Bragg, N.C.

Who doesn't like a good bargain? I'm sure most of us have perused a local flea market or street-side vendor, searching for a knockoff that provides the same functions as a more expensive item but at a significantly lower price. Finding a good deal makes us feel wise and savvy, two valuable characteristics of the avid consumer. When searching for these values, however, one must remember to weigh the proposed savings against the potential risk. I found this out first hand.

Upon arrival at a temporary duty station, I decided to explore the local area. While out, I figured I would pick up a few things that would add a bit of convenience to my hotel room, my new home away from home. I came across a street vendor who had what appeared to be some amazing values. As I browsed the trinkets and inexpensive items that lay spread across the 40-foot span of parking lot, I found one useful tool or novelty after another. Once I had narrowed my selection down to several items, I approached the vendor to begin bargaining. After about two minutes of offers and counter offers, I left with my newly purchased treasures, feeling quite confident that my wisdom and shopping savvy had prevailed.

Back at my hotel, I looked over my purchases, intent on getting as much use out of them as possible. I was particularly excited by what I thought was an extraordinary find — a surge protector. I excitedly unplugged some of my most cherished possessions from the wall outlets and plugged them into my new discounted electrical safeguard. Immediately afterward, I suffered a significant emotional event. When I plugged the surge protector into the wall outlet and turned it on, I received an electrical shock and suffered minor burns. I also blew a circuit in the room. Stunned and injured, I sat there in the dark. Thankfully, I was not severely injured, but I certainly could have been.

In retrospect, I realize electrical safety and the safeguards that support it are far more important and worth the added expense. In the future, I will continue to seek out bargains, but I will be sure to weigh the potential risks to my safety against the rewards of saving a few dollars.

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ACCIDENT BRIEFS

AVIATION

OH-58DR

Class A

The crew was en route for range training when they experienced a low-rotor RPM warning while in low-level flight. The crew initiated an autorotation, and the aircraft descended into a tree line. The crew was able to egress with minor injuries, and the aircraft was destroyed in a post-crash fire.

RQ-7B

Class B

The crew experienced an autopilot failure and initiated the flight termination system recovery parachute deployment. The aircraft is presumed to have crash landed, but it has not been recovered to date.

GROUND

Army Motor Vehicle

Class A

A Soldier died when he was run over by the HEMTT/HIPPO he was ground guiding.

Personnel Injury

Class A

A Soldier died during a class run after informing his battle buddy he was experiencing a rapid heart rate.

DRIVING

PMV-4

Class A

A Soldier died when his vehicle left the roadway and struck a concrete bridge pillar. The Soldier was reportedly not wearing his seat belt.

A Soldier was killed when he lost control of his vehicle and overturned while exiting a freeway off ramp.

A Soldier died when his vehicle left the road and crashed into a shallow creek.

PMV-2

Class A

A Soldier was killed when he apparently lost control of his motorcycle as he was approaching a bridge. The Soldier was thrown from the bike and slid into a stop sign. He was wearing proper personal protective equipment but had not completed safety training.

A Soldier died when his motorcycle struck a roadside pole. The Soldier was wearing full PPE, including a DOT-approved helmet.

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